

## IN THE SPECIFICATION

In the paragraph starting on line 19 of page 39,

FIG. 8a shows the type of directed acyclic graph generated in item 712. A data composition flow is shown over the DTDSA directed graphical structure. A data type is denoted by a circle node as depicted in 835, and terminal #PCDATA by oval shaped node 840. The dotted line across directed edges denotes choice list for children nodes at 825, and an edge marked with a “\*” at 820 denotes a repeatable and optional child data type in the document. The initial environmental variables/values 805,  $ENV_0$ , is operated on the document root 835, which has an associated binding specification  $D:=f(A)$  810, a function that depends on environmental variable  $A$  808 and produces a value for the environmental variable  $D$ . The resolved  $D$  variable/value pair as shown in 815 is added into environmental variables/values,  $ENV_2$  as shown in 812, and passed along to child node. Not shown in the figure, the choice list as illustrated in 825 should have an associated binding specification whose resolution can lead to finding the child from the choice list to visit next. The flow will reach the leaf nodes, such as #PCDATA node shown in 840, and CDATA node for attribute definition not shown in the figure. The leaf nodes have associated value specifications, e.g.,  $g(D)$  as shown in 830, which can be resolved using the incoming environmental variable/value pairs.